

**IN THE DRAWINGS**

Please enter the attached *Replacement Sheet* for Fig. 1 and *Replacement Sheet* for Fig. 2C in accordance with remarks below.

## **REMARKS**

By the *Office Action* of 20 October 2006, Claims 1-36 are pending in the Application, and all are rejected. By the present *Response and Amendment*, Applicant amends Claims 1, 14, and 19. No new matter is introduced by the present *Response and Amendment*. Applicant respectfully asserts that the pending claims are in condition for allowance and respectfully requests reconsideration of the claims in light of the following remarks.

### **1. Drawings**

The drawings are objected to under 37 CFR 1.84(p)(4) for duplicative use of a reference character. In the *Office Action*, the Examiner states that reference character “66” is used to designate both “the voltage divider” and the “signal controlling transistor.” Applicant thanks the Examiner for pointing out this informality in the drawings. This duplicative reference character “66” appears on Fig. 2C. A Replacement Sheet for Fig. 2C is submitted with the present *Response and Amendment*. The Replacement Sheet for Fig. 2C corrects the references character for the voltage divider to be reference character “67.” As addressed, below the Specification has also been amended to associate all references to the voltage divider to reference character “67.”

The drawings are objected to under 37 CFR 1.83(a) for failure to show every feature of the invention specified in the claims. In the *Office Action*, the Examiner states that “a circuit for disabling the low drop-out regulator including a circuit for disabling the circuit in response to a sleep mode control signal as described in claim 16 must be shown or the feature(s) canceled from the drawings.” A Replacement Sheet for Fig. 1 is submitted with the present *Response and Amendment*, which adds the previously omitted signal line from the Low Power Sleep input to the Low-Dropout Regulator 110. Applicant respectfully submits that the amendment to Fig. 1 does not present new matter, as the low power sleep input to the Low-Dropout Regulator 110 was fully disclosed in the *Specification* in Claim 16 and paragraphs [50]–[52]. Furthermore, Applicant respectfully submits that the omission of this connector line was a clerical error and therefore the amendment to Replacement Sheet for Fig. 1 does not constitute new matter.

### **2. Specification**

In the *Office Action*, the Examiner objects to two minor informalities in the *Specification*. Applicant thanks the Examiner for pointing out the two informalities in the *Specification*. First,

the *Specification* is rejected to for a typing error. As provided, above, Applicant has corrected the typing error in paragraph [32] as follows: “Inactivating the boost converter circuit at higher voltage levels permits the supply **[[the]] to** retain high efficiency at high input voltage levels.”

Second, the *Specification* is rejected to for describing “the voltage divider” and the “signal controlling transistor” with the same reference character. In accordance with the above described amendments to the drawings, all references to “the voltage divider 66” in the *Specification* have been modified to reference “the voltage divider 67,” as it is now correctly labeled in the Replacement Sheet for Fig. 2C. No new matter is presented by the above amendments to the *Specification*. Accordingly, withdrawal of the objection to the *Specification* is respectfully requested.

### **3. Claim Objection**

Claim 14 is objected to because of an informality. Applicant thanks the Examiner for pointing out the informality in Claim 14. The amendments to Claim 14 correct this informality. No new matter is presented by the above amendment to Claim 14. Accordingly, withdrawal of the objection to Claim 14 is respectfully requested.

### **4. Rejections of Independent Claims 1 and 19 Under 35 USC § 103(a)**

The Examiner rejected Independent Claims 1 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Melcher et al. (U.S. Patent No. 4,517,633) (hereinafter referred to as “*Melcher*”) in view of Lange et al. (U.S. Patent No. 5,179,508) (hereinafter referred to as “*Lange*”). Applicant respectfully disagrees with the present rejection and submits the pending claims are allowable as amended over the cited references.

Applicant has amended Claims 1 and 19 to further clarify and more particularly point out Applicant’s claimed invention. Applicant’s amendments to Claims 1 and 19 clarify some of the significant benefits of Applicant’s claimed invention. More particularly, Applicant’s amended Claim 1 now recites a power supply comprising “an input receiving an input voltage **of a plurality of nominal input voltages**” and “a forward converter operable to convert **dynamically** the input voltage **of the plurality of nominal input voltages** to a plurality of regulated output voltages.” Therefore, amended Claim 1 requires that the power supply be enabled to dynamically process an input voltage that can be a number of different nominal input voltages. As stated in

the Specification, “no single power supply of the prior art can meet the requirement for high-efficiency (required for vehicle monitoring applications due to vehicle battery drain issue) and wide operational voltage range (10 V DC to 100 V DC) required by the vast array of industrial vehicles, especially when loads can change significantly (such as when one load requires a temporary boost of current to operate).” (*Specification* at ¶ [53]). Therefore, as repeatedly recited in the *Specification*, it is “[f]undamental to the unique capability of the power supply board 10 to support a wide-input supply range (for example, 10V to 100V).” (*Specification* at ¶ [29]).

Similar amendments have been offered for Applicant’s Claim 19. Specifically, Applicant’s Claim 19 now requires “a boost circuit to boost an input voltage of a plurality of nominal input voltages to a boost voltage” and “a multi-voltage output forward converter circuit that receives the input/boost voltage of the plurality of nominal input voltages and generates a plurality of DC output voltages therefrom.” Therefore, the boost circuit and forward converter of Applicant’s claimed invention must be enabled to process an input voltage that can be a number of different nominal input voltages.

According to the *Office Action*, *Melcher* discloses a forward converter capable of creating a plurality of regulated output voltages. Furthermore, the *Office Action* states the *Lange* teaches a boost converter that can be selectively activated. Applicant respectfully submits that neither of the cited references contain any disclosure regarding the ability of a power supply to receive “an input voltage of a plurality of nominal input voltages.” In fact, the forward converter disclosed in *Melcher* is limited to a single input voltage value. Neither reference discloses, suggests, or teaches a power supply capable of handling a “plurality of nominal input voltages.” (Claims 1 and 19). Thus, Applicant’s amended Claims 1 and 19 are now in condition for allowance.

## 5. Rejections of Claims 2 -18 and 20-36 Under 35 USC § 103(a)

The Examiner rejected Claims 2-18 and 20-36 under 35 U.S.C. § 103(a) as being unpatentable in view of *Melcher* and *Lange* and/or other cited references. Applicant submits that Claims 2-18 and 20-36 are now allowable on the grounds that they are dependent from allowable Claims 1 or 19, as amended. Thus, the limitations recited in Claims 2-18 and 20-36 are novel

and unobvious in view of the cited references as being dependent from an allowable base claim and for the further limitations contained therein. Accordingly, Applicant submits that Claims 2-18 and 20-36 are in condition for allowance.

**6. Fees**

Other than the three-month petition for extension of time for which a petition for extension of time has been filed herewith, no other fees are believed due. Accordingly, Applicant authorizes the Commissioner to deduct the required \$510.00 three-month extension of time fee from Deposit Account No. 20-1507. If any additional fee is due, please charge any underpayment or credit any overpayment to Deposit Account No. 20-1507.

## CONCLUSION

By the present *Response and Amendment*, the Application has been in placed in full condition for allowance. Accordingly, Applicant respectfully requests early and favorable action. Should the Examiner have any further questions or reservations, the Examiner is invited to telephone the undersigned Attorney at 404.885.3695.

Respectfully submitted,

/trentonaward59157/

Trenton A. Ward  
Registration No. 59,157

Troutman Sanders LLP  
Bank of America Plaza  
600 Peachtree Street, N.E., Suite 5200  
Atlanta, Georgia 30308-2216  
United States  
Phone: 404.885.3695  
Fax: 404.962.6818

**Certificate of E-Filing/Transmission under 37 CFR § 1.8**

In accordance with 37 CFR § 1.8, I certify that this correspondence is being deposited and electronically filed with the USPTO via the USPTO's EFS-Web Electronic Filing System to:

**Commissioner for Patents**

**Mail Stop AMENDMENT**

**P.O. Box 1450**

**Alexandria, VA 22313-1450**

**on 20 April 2007.**

/trentonaward59157/

Trenton A. Ward  
Registration No. 59,157